CYTOSKELETON (mechanical)

NUCLEAR ENVELOPE mechanical function

CYTOSLOIC ENVIRONMENT ionic, changing,

1Phospholations , de phospholation, amount of free phosphate ion,

2quality of of ion ie ATP amount of chemical energy to cleave phosphate. Kinase(S) is a phosphate ....Cyclin dependent Kinases, Cyclin.

3Relative to ATP

CELLULAR ENVIRONMENT Extracellular matrix. Chemical signals

Positional information of cell, were in the system is it, what is its function, how is DNA used

CLAIMS

I claim:

1. A method of evaluation and profiling of electrodynamic interaction based on genomic response in cells creating devices and studying of energy and usage within the cell.

a. evaluation of any parts or functioning together as the genomic (DNA) function within the context of the cell and the known pathways of chemical and physical changes

b. conducting, using and controlling electronic, magnetic and photonic energy providing vectorial analysis of structures of DNA regulating cellular cycling pathways.

c. functioning of cells on the understanding of a bioelectromagnetic nature.

2. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells examining electronic nature of cells consists of describing, studying, detecting and quantifying electrochemical interactions of the cells' electronic energy from DNA developing a new physics clarifications examining chemical reactions utilizing cellular DNAs' higher symmetry electromagnetic as displayed by genomic function directing cells' electronics in a higher symmetry mechanism though physical explanation of chemical reactions directing technology based in biology, chemistry and physics, systems.

3. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells examining electromagnetic nature of cells and recording and charting active.

   a. Creating electromagnetic signature of biological systems

4. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells examining electronic nature of biomolecules and recording and charting active.

   a. Creating electronic signature of biological systems

5. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells examining electromagnetic nature of biomolecules and recording and charting active.

6. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells to establish a system based on the design principles of DNA genomic function within a cell recording and charting active.

   a. for engineering applications which include systems which are: physical, mechanical, chemical, biological, mathematical, electronic, magnetic, energy, computing, software, data storage or any combination of above.

   b. expressing system as: 1-dimensional, 2-dimensional, 3-dimensional, 4 –dimensional, quantum, vector or as Hamiltonian or any combination of above system.

7. The method of claims 2, 3, 4, 5, and 6 for any electronic or magnetic fields or potentials in mapping, evaluating and using electric and magnetic field recording and charting active of cells.

   a. imagining of cells or molecules interaction though chemical, electronic, physical means.

8. A method of evaluation and profiling of electrodynamic interaction based on genomic response in cells whereas the physiochemical properties of spatiotemporal organization of biomolecules regulating and functioning by nuclear DNA electronic structure.

9. A method of evaluation and profiling of electrodynamic interaction based on genomic response in cells designing DNA as harmonizing electromagnetic symmetry mechanism.

   a. functioning of DNA 5' terminus to 3' or 3'terminus to 5' system of DNA

   b. bi-directional electromagnetic flow of energy-(DNA bidirectionality or symmetry of energy flow) interpreting the input energy(chemical) to the charge coming time-domain cell cycle, and the output

energy from the charge being emitted into 3-space, comprises a scalar potential as DNA scalar potential is measured by protein, amino acid, RNA(s) or DNA interaction, polyamines ex. Putricine, histone interaction

c. heterodimer transcriptional proteins which symmetrically bind due to electrostatic free energy palindromes of DNA sequences: those proteins in the class of fos-jun displaying the directionality mechanism

10. A method of evaluation and profiling of electrodynamic interaction based on genomic response in cells creating devices and studying displaying the enthalpy (Chemical) control of energy within a cell converting to entropy (free energy) storage or mechanical usage in biological molecules in spatiotemporal (cell cycle) organization.

11. A method of evaluation and profiling of electrodynamic interaction based on genomic response in cells consisting of: a biological cell or cells, chemical explanations of electron(ic) movement revealing the physics (al) and mechanical relationship though the cell cycle and reproduction and any portion thereof.

12. A method of evaluation and profiling of electrodynamic interaction based on genomic response in cells consisting of: a biological cell or cells, chemical explanations acid base reactions revealing the physics (al) and mechanical relationship though the cell cycle and reproduction and any portion thereof.

13. A method of evaluation and profiling of electrodynamic interaction based on genomic response in cells the chemical processes as electron transfers and the abilities of known and unknown molecules carrying , transferring, storing electrons at fixed points in time and in real time.

14. In regards to claim 11: Considering the biological structure of a cell as an electronic structure. consisting of a plasma membrane, a cytosolic environment, DNA magnetic force mechanical due to chemical gradients in a cell: nuclear envelope , DNA, plasma membrane, cytosol, extracellular matrix.

15. In regards to claim 11: A system based on the design principles of DNA genomic function within a cell defining ultimate design of DNA electromagnetic mechanical mechanism.

16. A method for evaluation and profiling of electrodynamic interaction based on genomic response cell function (in vivo, in vitro) applying a multi faceted approach to study the biophysical properties of biochemical interactions relative to the cells genome as the sequencing of the genome accomplishing function.

17. A method for evaluation and profiling of electrodynamic interaction based on genomic response cell using the electrostatic interactions of a magnetic field as the static interactions of a cell during metaphase of mitosis.

    a. (figure 1.electromagnetic field interactions of DNA of a cell during reproduction during metaphase mitosis termed three m)
    b. explaining an equilibrium of (electron) energy symmetry in a physical system of a cell.
    c. Defining chromatin as the highest ordered state of cellular DNA, as an ideal crystal directing magnetic component of an electric field.
    d. analyzing, quantifying and explaining symmetrical systems of electromagnetic interaction based on a cells using electronic and magnetic energy of genomic response.
    e. defining of biological cell(s) relative to DNA function as bioelectromagnetic, electromagnetic, electronic, magnetic,
    f. defining electromagnetic field interactions to biological systems
    g. eliciting electronic or magnetic responses from a cell(s)
    h. defining known or unknown energy usages of cellular composition of DNA.
    i. Showing balance of shape size and position of cellular DNA in relation to cytosolic and extracellular matrix

j. Using a natural physical system of a cell during metaphase (figure 3) of cellular reproduction in showing, explaining quantifying equilibrium of DNA (Chromatin) symmetry in physical system such as magnetic and electrical fields.

k. using and explaining electrostatic interactions of cells during reproduction: mitosis/ meiosis at metaphase being a magnetic field, termed three M, being a purely natural symmetrical system.

l. using the three M model to describe electrodynamics of electromagnetic field interactions within the biological system of a cell during anaphase, prophase, metaphase, in a cell and the deformation during telophase and cytokinesis as magnetic or electromagnetic force.

m. using the three M model to describe electrodynamics of electromagnetic field interactions within the biological system of a cell during reproduction and the life (cell cycle) of a cell

n. using and explanting of mechanisms and operation of magnetic or electrical interactions in the natural system of a cell.

o. Using classical and quantum physics to evaluate and quantify potentials, fields and waves in a biological cell system.

p. Using in explanation of mechanisms chemical, mechanical and physical and operation of cellular division in terms of magnetic or electrical interactions.

18. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells controls of cells regulated by nuclear electronic structure transitions characterization of activity of responses in a single cell, group of cells, organ, tissue or organism.

a. electron transfer mechanisms within DNA

b. changes in intracellular p.H. due to ionic flux though the plasma membrane

c. change in voltage due to dynamics of cytosol, extracellular, nuclear envelope, DNA structure.

d. fluid mechanics of cytosolic environment.

19. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells examining functioning as an electromagnetic exploring and defining electromagnetic properties, electronic, computing, capabilities of DNA confirmations within cellular environment.

20. A method for evaluation and profiling of electrodynamic interaction based on genomic response determining of gene and protein function expressing symmetry of the (electron) energy and current densities are controlled and displayed by the electrodynamics and conformational transitions of nuclear architecture DNA.(double helix, bead on string, lampbrush, chromatin)

21. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells which consists of describing, studying, evaluating and quantifying

    a. usage of energy within the cell.
    b. application of Physics of energy systems relative biological systems.
    c. modeling and applying of biological cell(s) as a magnetic and electronic structures.
    d. controlling cell cycle
    e. interacting Cell –cell
    f. communications of tissue and organ systems
    g. patterning of embryo
    h. effecting electromagnetic fields on organism

22. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells which consists of describing, studying, evaluating and quantifying usage of bioelectromagnetic control of cell(s) and mapping whole genomes according to electronic and magnetic values.

23. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells which consists of moving elements (known as pumps or channels) though the plasma membrane specifically ions of sodium, potassium, calcium, magnesium, chlorine and water (H+ , OH-).

a. explaining and using ionic currents across plasma membrane
b. explaining and using ionic transduction across plasma membrane
c. explaining and using ionic changing of conduction of plasma membrane
d. explaining and using ionic currents changing ionic currents
e. explaining and using ionic currents in the gap junctions
f. explaining and using the electrogenic nature of plasma membrane

24. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells which consists

a. Changing and varying of pH. intercellular environment and conductivity of plasma membrane

1) changing Plasma membranes ionic channels the physical and chemical nature of the fluid within the cell
2) changing Plasma membranes ionic channels the physical and chemical nature of the plasma membrane.
3) changing Plasma membranes ionic channels the physical and chemical nature of the cytoskeleton.
4) changing Plasma membranes ionic channels the physical and chemical nature G-protein-coupled
5) changing Plasma membranes ionic channels the physical and chemical nature of nuclear region of cell
6) changing Plasma membranes ionic channels the physical and chemical nature of nuclear envelope
7) changing Plasma membranes ionic channels the physical and chemical nature of cellular DNA
8) changing Plasma membranes ionic channels the physical and chemical nature of cellular DNA shape or size
9) Receptors changing plasma membranes ionic channels the physical and chemical nature of the interior of cell

25. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells which consists

a. Changing permeability of plasma membrane

b. Polarization of plasma membrane

c. Depolarization of plasma membrane.

d. explaining and using ionic currents as mechanically changing structural integrity of architecture structure

26. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells which consists

a. transitioning the conformations of DNA within the cell

b. transitioning the conformations of nuclear architecture

c. measure field strength and functionality to create cellular change due to electromagnetic properties of DNA.

d. conducting, non conducting, relays, capacitors, currents, magnetic flux densities

e. assembling and self assembling of nano-scale DNA circuit

27. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells which consists

a. Defining, using and associating changes with a cells' cycle designated as GO, G1, S, G2, M relative to the geometry and or architecture of DNA

b. Defining, using and associating the cell's cycle as a cyclic operating system relative to the geometry and or architecture of DNA

c. Defining, using and associating the cell's cycle as a cyclic operating system and any and all parts thereof relative to the geometry and or architecture of DNA

d. Defining, using and associating changes with a cells' cycle, embryo patterning, cellular responses within an organism relative to the geometry and or architecture of DNA

e. Defining, using and associating the cell's cycle as a cyclic operating system and any and all parts thereof relative to the geometrical complexes of DNA

f. Defining, using and associating the cell's cycle as a cyclic operating system and any and all parts thereof relative to the architecture of DNA

28. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells which consists cytoskeleton, nuclear pore, nuclear complex, geometry, architecture or structural integrity.

29. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells in tracking, using, explaining, outlining microtubules and microtubule associate protein (MAP) reacting and sensing the bioelectromagnetic field.

a. measurement of magnetic force via electrical activity of microtubules, named dynein and kinesin.

30. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells which consists cell content of deoxyribonucleosides triphosphates:diphosphates: or monophospates relative to cyclin, cyclin dependent kinases or cyclin dependent.kinases 2 concentration. a-s.s listed and using (ase) ex ATPase(s)

a. ATP to cyclin concentration

b. ADP to cyclin dependent kinases (cdk) concentration

c. AMP or cyclic AMP to cyclin dependent kinase 2(cdk2) concentration

d. ADP to cyclin concentration

e. AMP or cyclic AMP to cyclin concentration

f. ATP to cyclin dependent kinases (cdk) concentration

g. AMP or cyclic AMP to cyclin dependent kinases (cdk) concentration

h. ATP to cyclin dependent kinase 2(cdk2) concentration

i. AMP or cyclic AMP to cyclin dependent kinase 2(cdk2) concentration

j. GTP to cyclin concentration

k. GDP to cyclin dependent kinases (cdk) concentration

l. GMP or cyclic AMP to cyclin dependent kinase 2(cdk2) concentration

m. GDP to cyclin concentration

n. GMP or cyclic AMP to cyclin concentration

o. GTP to cyclin dependent kinases (cdk) concentration

p. GMP or cyclic AMP to cyclin dependent kinases (cdk) concentration

q. GTP to cyclin dependent kinase 2(cdk2) concentration

r. GMP or cyclic GMP to cyclin dependent kinase 2(cdk2) concentration

s. TTP to cyclin concentration

t. TDP to cyclin dependent kinases (cdk) concentration

u. TMP or cyclic AMP to cyclin dependent kinase 2(cdk2) concentration

v. TDP to cyclin concentration

w. TMP or cyclic AMP to cyclin concentration

x. TTP to cyclin dependent kinases (cdk) concentration

y. TMP or cyclic AMP to cyclin dependent kinases (cdk) concentration

z. TTP to cyclin dependent kinase 2(cdk2) concentration

aa. TMP or cyclic TMP to cyclin dependent kinase 2(cdk2) concentration

bb. CTP to cyclin concentration

cc. CDP to cyclin dependent kinases (cdk) concentration

dd. CMP or cyclic AMP to cyclin dependent kinase 2(cdk2) concentration

ee. CDP to cyclin concentration

ff. CMP or cyclic AMP to cyclin concentration

gg. CTP to cyclin dependent kinases (cdk) concentration

hh. CMP or cyclic AMP to cyclin dependent kinases (cdk) concentration

ii. CTP to cyclin dependent kinase 2(cdk2) concentration

jj. CMP or cyclic CMP to cyclin dependent kinase 2(cdk2) concentration

kk. UTP to cyclin concentration

ll. UDP to cyclin dependent kinases (cdk) concentration

mm. UMP or cyclic AMP to cyclin dependent kinase 2(cdk2) concentration

nn. UDP to cyclin concentration

oo. UMP or cyclic AMP to cyclin concentration

pp. UTP to cyclin dependent kinases (cdk) concentration

qq. UMP or cyclic AMP to cyclin dependent kinases (cdk) concentration

rr. UTP to cyclin dependent kinase 2(cdk2) concentration

ss. UMP or cyclic UMP to cyclin dependent kinase 2(cdk2) concentration

1) alternately phospholating of protein in the class of p53,p21, rb proteins.

31. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells responding to anion and cation-pi interactions with responding to intercellular ions or chemicals specific ions of sodium, potassium, calcium, magnesium, chlorine and water (H+ , OH-) to interacting molecules.

32. The method according to claim30, using energetic base nucleosides which carry or store phosphate combining 31, using element and their ion(s) which are transported though plasma membrane, for evaluation

and profiling of electrodynamic interaction based on genomic response in cells example (A)TP hydrolysis by the Na,K-ATPase

33. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells controlling of cells regulating nuclear electronic structure transitions

    a. controlling of electron transfers due to hydrogen (electron) bonding of purines and pyrimidines
    b. controlling of electron transfers of nucleic acid bases
    c. controlling of electron transfers base pairs
    d. controlling of electron transfers in base pairing
    e. controlling of electron transfers in AT or GC banding
    f. controlling of electron transfers in sequences of DNA
    g. controlling of electron transfers in a sequence dependent manner using "double helix" structure
    h. controlling of electron transfers in using "bead on string" structure
    i. controlling of electron transfers in using "lampbrush" structure
    j. controlling of electron transfers in using "chromatin" structure

34. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells which consists defining and using conformational states intercellular DNA

    a. using "double helix" structure
    b. . using "bead on string" structure
    c. . using "lampbrush" structure
    d. . using "chromatin" structure

35. The method of claim 34 physical structure of cellular DNA describing, evaluating and using of these transitions as circuit element both partial and full functioning circuits and electromagnetic function.

36. The method of claim 34 and 35 physical electronic structure combining claim 32

a. using and creating virtual and actual structures of DNA and those observable structures to use exact correlation between them.

b. directing engineering application of this electromagnetic mechanism

c. making integrated circuits using DNA molecules as a support structure with methods also for making DNA based transistors, capacitors, inductors, conductors, relays diodes and battery design.

37. The method of claim 34 in defining and using the structures which are mixed as part and factors of the genomic structure exists as: solely : a: b: c. or d. or factors of : a and b: a and b :a and c: a and d :a,b and c: a,b and d: a,b,c and d: a,c and db,c: b,c and d: b,d : c,d

38. The method of claim 34, 37 in defining and using the structures interactions as liquid crystal.

a. defining the liquid crystal structure of DNA confirmation

b. evaluating electronic, magnetic and physical confirmations

c. showing controls regulated by DNA and nuclear structure transitions as electrical and or magnetic activity

d. .using palindromes of DNA sequences genomic function explain bidirectionality of current or magnetic flux or non functionality of charge to mass ratio forces.

e. measuring and using asymmetries of ionic flux to explain symmetry of DNA/RNA replication or transcription as a response to physiologic change is regulated via nuclear architectures DNA

f. explaining understanding DNA during replication/transcription by a balance of charge, DNA/RNAs the symmetry of energy is a magnetic force

39. The method of claim 33 measuring, predicting, quantifying, and defining and evaluating electromagnetic properties of histone incorporating DNA sequences in the functionality of genomic response.

a. measuring Mediation of charge within the DNA molecule as histone pack DNA

b. measuring of charge mediation to the functional packing of DNA allowing access to information within the genome.

c. measurement and usage of new packing properties of DNA

d. using specific binding of CENP NH2 terminal domains sequence dependent

e. interactions of histone tail mostly NH2 and COOH switching

40. The method of claim 36 to predicting, evaluating electrical activity chemical intracellular cytosolic induction of ionic flux, and change in conduction of plasma membrane using chemical dyes or imagining devices showing electronic activity or electron or photon transfer.

a. the method of claim of 34 staining and sequential fluorescence analysis of the dyes bound to specific base regions and intercalating sites on DNA fluorescence intensity of each dye is proportional to the relative number of specific base regions or intercalating sites

a. active genomic regions

b. groups of genes

c. single gene

d. DNA/DNA replication (active or inactive)

e. DNA/RNA - snRNa, m-RNA, t-RNA

f. DNA/Protein

g. DNA/Amino acid

h. DNA/DNA polymerase

i. DNA/RNA polymerase

j. DNA/ion

k. Ion/protein

l. Protein/protein

m. Gene/protein

n. Protein/RNA

o. RNA/protein

p. RNA/ion

q. RNA/Amino acid

r. RNA/DNA

s. RNA/RNA

t. Amino acids

b. claim of 40 a using imagining devices detecting transfer or change of electronic or magnetic components

a. active genomic regions

b. groups of genes

c. single gene

d. DNA/DNA replication (active or inactive)

e. DNA/RNA - snRNa, m-RNA, t-RNA

f. DNA/Protein

g. DNA/Amino acid

h. DNA/DNA polymerase

i. DNA/RNA polymerase

j. DNA/ion

k. Ion/protein

l. Protein/protein

m. Gene/protein

n. Protein/RNA

o. RNA/protein

p. RNA/ion

q. RNA/Amino acid

r. RNA/DNA

s. RNA/RNA

t. Amino acids

41. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells regards static to dynamic transition hydrations of biomolecules electron transport using and examining single electron transfer of terminus:

a. denoted by positive (+) Amino (N) chemical depicted as NH3 or as a functional Amino group NH2

1) modifying by oxidations or reductions called a base chemically existing in forms of NH3, NH2, NH, N(-)

b. denoted by a negative (-)Caryboxyl (C) chemical depicted as COOH or as functional hydroxyl group -OH

1) modifying by oxidations or reductions called an acid chemically existing in forms of COOH, COO, CO

c. Combining a and b p.H. dependent structures

d.. defining a and b as p.H. dependent structures reactive as claims 2, 3, 4, 5, 6, 24, 26,33,40

e. associating change with temperature

42. The method of claim 41 resulting upon and single electron transfers in DNA

a. Intercellular Terminus hydration and conduction electron transport.

1) 5' and 3' terminus of DNA molecule conduct current in opposing direction with a symmetry of magnetic force.

2) 5' terminus to 3' or 3'terminus to 5' mimic the system of DNA electromagnetic and or any part thereof described within this application for use to use, build, design, regulation of know mechanical, electronic, computer programs, make known and identify biological pathways with a cell, groups of cells, organs, tissue, or organism for desire applicable results

b. A method of cellular evaluation based on the internal magnetic force exerted and magnetic energy directed within a cell via DNA chromatin leading to it most compact form, during cellular reproduction (mitosis or meiosis) flowing energy responsible for cellular division and DNA relative to step (e) in method 41 to express super conduction properties of DNA as an ideal crystal.

43. The method of claim 30, are specific to phospholation or de phospholation any cellular molecules ability including acetylations, methylations, deacetylations, protonation, deprotonation.

a. redefining claims 24 (a) parts (3),(4),(6),(9).

44. The method of claim 40 in using a cell as a model or in actuality of conductance, fluxing or storing charge as a capacitor of cellular DNA and interaction in design or usage in magnetoelastic and or magnetostrictive device.

44. The method of claim 8 application of cellular mircoarray, disease diagnosis, drug discovery, pharmacogenomics and therapeutic responses to drugs, chemical elements, vibrations, light, electromagnetic fields, electric field, thermodynamics, or force.

45.. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells which consists of describing, studying, evaluating and quantifying molecular protein motors

a. conversion of chemical energy into mechanical forces due to electrodynamics of DNA of actin, microtubules, dynein and kinesin motors.

b. Cytoskeleton

46.A method claims for evaluation and profiling of electrodynamic interaction based on genomic response in cells which consists of describing, studying, evaluating and quantifying microtubules and actin filament polarization as functional dependent.

47 A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells which consists of describing, studying, evaluating and quantifying (chemical energy into mechanical force) electromechanical interactions

a. cytoskeleton

b. actin, myosin, intergins, Cytohesins, mircotubules, dynein and kinesin motors.

c. Measurement of twisting forces

d. Measurement packing forces

e. Measurement of rolling forces

f. Measurement of stress and or strain forces

48. A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells which consists of describing, studying, evaluating and quantifying bioelectromagnetic field interactions of intercellular voltage changes, conduction of ions, p.H, gradients based on mechanical structures to modify cells.

49.A method for evaluation and profiling of electrodynamic interaction based on genomic response in cells establishing the biology of a cells' physical and fluid components and structures as measurable in physics .

a) equating electrochemical gradients potential to electromotive potentials

b) measuring electrochemical gradients to electromotive work

50) A method for evaluation and profiling of electrodynamic interaction based on genomic response in a cell establishing a bioelectromagnetic mechanism through systems of: a biological cells' DNA transitions, chemical reactions of biomolecules electron transfers, and the physics of electrodynamics defining magnetic field interaction.

a) using a bioelectromagnetic interaction

b) using a bioelectromechanical interaction

51) The method of claim 50 giving diagnostic analysis will give a measurable value electrodynamics and bioelectromagnetic resolution of normal functioning cells relative to desired functioning cells valves determining against know and unknown genes and sequences, including DNA base pair interaction fit the electrodynamical profile for those cells.

52) The method of claim 50, determining nature of a cell electromagnetic(s), electrodynamics, DNA electronics.

52) The method of claim 50 showing known and unknown regions within the chromatin, nuclear DNA(genes, sequences, bases pairs) will be analyzed for structural function on a singular cellular and a multicellular level with their context (SPFI) organ/ tissue position which determining rates of cell reproduction are indicative of veracity of disease /DNA damage.

53) The method of claim 50, evaluating by electrodynamic profiles cells reproductive rates will be shown as high or low electrodynamical cell or cell types activity.

54) The method of claim 50. creating and establishing new standards of specific absorption rate (SAR) measured on the rate of energy absorption in a tissue by cell evaluation.

a. explore the effects of electrical and magnetic field producing on a cellular and genomic level for "safety" of these devices testing effects of RF energy on the body via cellular level of known and unknown hazards associated with RF energy exposure.

b. measuring tissue and organs on a cellular response both inter cellular and extra cellular relative to gene interaction and regulation

c. assessing quantity of energy and quality(kind) of energies which interfere with normal operation of cell and the control of cycle and reproduction.

d. effects of cells differs and would need to be examined for each tissue region relative to its location for accurate "scientific acceptable benefit".

55)The method of claim 50 modifying of cells are to be used for therapeutic effects for all diseases introducing new cells within biological systems for desired proper function from stem cell as stem cell is a generic term for cells, electronic structures, which have not yet received information of their use and or function .

56) The method of claim 51, designing and use cell based biosensor.

57) The method of claim 51, mechanism of drug interaction with biological systems.

a. increasing efficient delivery of drugs to biological systems

b. solely increasing uptake of drugs

c. evaluating drug, anti-motoitics, inteterferons, oncogene-based cancer therapy, cytokines, platinum and other elements (ionic or elemental), antisense drugs, tumor suppressor enyzymes -p53,p-21 etc, antiangiogensis factors, DNA and RNA cleavage compounds on whole genomic response, cellular response, tissue and organ response relative to electrodynamic nuclear activity.

58) The method of claim 51 using radio frequency, electroporation and proton therapy or other electric or magnetic stimulation which may be solely, or in combination to enhance drugs or ions delivery and may encompass gene therapy.

59)The method of claim 51assessing therapeutic responses to drugs, elements, vibrations, light, electromagnetic fields, electrical field, thermodynamics, force, with genomic information intact within a cell, as to specific DNA (in every biological systems differs if it be a single base difference or millions of bases in turn structural function positional information) displaying critical functioning.

60) Method of explaining effects of electromagnetic spectrum interactions with biological system using electronic/magnetic regulation of the cell cycle control as cells respond to limited controls of bioelectromagnetic fields they create and the electrodynamics of bioelectromagnetic control.

61) A method for creating a device to specification of a single biological cell or any portion of the pathway of the electronic cell function and may multi function as a battery to dynamically or statically store charge and responds to energy needs and conditions fueling by simple elemental ions as hydrogen fuel cells driven by complex biomolecules.

a)using the biological cell holding DNAs properties of conductance, fluxing the capacitance, storing charge to illicit response or shear usage of energy as magnetoelastic and magnetostrictive forces produced via these properties.

62)A method using the known and unknown liquid crystals of DNA for industrial application from nano-scale micro computing, energy usage, and energy production and encompassing simple circuit to magnetoelastic devices.

a) enhancing known circuits, computer processors, amplification of electrical, magnetic current, and sound, radio, microwave and light(uv, visible, IR, FTIR) frequencies thought the use or incorporation of liquid crystal from structure to function.

63) A method of using bioelectrodynamics to evaluate eastern and western medicine together.

a. Acupuncture and meridian system,chaka,aura etc. are known and based in electrical activities of cell with the philosophy is to disrupt the electrical energy of the system to return the cells to a "normal" state of function.

b. provide a base of integration of practical usage of eastern and western medical systems

64)The method of claim 52stimulating of the brain or nervous system to elevate physical, emotional and psychological abnormalities

a)Using a machine that produces sound and electromagnetic frequencies can shown to direct cellular response

b)delivering precise frequency the machine to the brain or neutral network directly or indirectly to correct mis frequencies within the tissue or at points applied (chakas, merdian point) to particular regions of the cells of brain or nervous system responses to the energy should function to correct physiological, psychological abnormalities.

65) The method of claim 64 PRACTIONERS DIAGNOSITIC RESEARCH AND DELIVERY DEVICE for medical/biological application to evaluate and analysis of genomic information of desire cells line, type, tissue and organ system.

The device consist of four major components:

a) computer interface,

b) drug/proton delivery system,

c) a wave/proton function analyzer/harmonic translator

d) application by a applicator ,a device or a hand tool, which direct energy and or drugs to subject or patient

1) Computer: the computer will be the interfacing device for the other elements of the machine.
2) The computer will have the ability to create records for patients which give and electrodynamic profile of effected/probed area.
3) Storing and create a profile of patient.
4) The computer will use a software package to determine structural functional positional information of cell(s) based on the electrodynamics of genomic information.
5) evaluating the information and determine valves of normal functions cells to abnormal functions and posses the ability to use a real time analysis of DNA usage.
6) determining and use valves(numerical) deliver precise aliquots of desired physical energy(emf, sound, light, chemical, or biological, drug, dyes to determine, correct, eradicate electrodynamics of cellular response.

a)These are to included signaling of cells both singularly and multi cell signals though a resonate analysis. Cell(s) resonating at frequencies the programs (software) can amplify signals received and signals can be desired physical energy (heat, emf, sound, light), chemical, or biological. The signals can be in response to induced energy as aforementioned and to drugs, dyes.

7) stimulating and evaluating responses of Drug/proton delivery system consist of pumps.to deliver desire ions, chemicals, drugs, dyes in liquid or dried from into the probed area.

8)providing information to the computer of p.H. valves, heat, and conductive valves of probed area as the drug/proton delivery system connected to the computer and the hand tool. The pumps within the system are driven by air and/ or liquid. This will also function and be made on the principles of a p.H. meter.

9) delivering wave/proton function analyzer/harmonic translator. To frequencies of light, sound, emf, electron, proton or magnetic to stimulate and evaluate response of probed area the translator connecting to the computer and applicator/ hand tool.

a translator may consist of laser(light), electrical source (able to deliver both electrical and magnetic sources of energy, frequency of sound source and/or radio waves.

10) Delivering system of Applicator/Hand tool for wave/proton function harmonic translator and drug deliver interfacing with computer system

a)Applicator/a hand tool may consists of needles three as three systems incorporated 1) wave/proton function analyzer/harmonic translator 2) drug/proton delivery 3) computer using needles as wires to determine electronic valves of the cells within the probed region.

b)The needles may triangulated or linear depend upon application. The needles are hollow and can be used to delivery of cells being examined. Inserting the needles are to desired area , tissue layer using as a probe and computer determines the tissue and the cell electrical activities as physical determining the reference of cell position and activity.

11). The bioelectromagnetic signature of cell function is to be determined, evaluated and corrective stimulation can be administered.

66) The method of claim 64, evaluation and profiling of electrodynamic interaction based on genomic response in cells designing supercomputers, optical systems, imaging systems, hydrogen fuel cell.

67) The method of claim 64 staining cells,to show electrical activity.

a. live cells
b. dead cells
c. addition of chemical agents
d. addition of biological agents
e. addition of physical constraint
f. combination of any of the above